

WONG CABELLO LUTSCH RUTHERFORD & BRUCCULERI, LLP

Serial No.: 10/714,359
Reply to Office Action of May 20, 2004**I. AMENDMENTS TO THE CLAIMS:**

The following listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1-56. (Cancelled)

57. (Currently Amended) ~~The method of claim 56~~ A method for filling a cigarette tube with tobacco, comprising not necessarily in sequence:

metering loose tobacco from a hopper to a compression chamber;
compressing the loose tobacco in the compression chamber; and
injecting the compressed tobacco from the compression chamber to a cigarette tube in
communication with the compression chamber,
wherein the metering, compressing, and injecting steps are respectively automated by
a metering motor, a compression motor, and an injection motor.

58. (Currently Amended) ~~The method of claim 56, further comprising~~ A method for filling a cigarette tube with tobacco, comprising not necessarily in sequence:

metering loose tobacco from a hopper to a compression chamber;
compressing the loose tobacco in the compression chamber;
assessing the status of a first switch during compression to determining whether a
sufficient quantity of tobacco has been compressed in the compression chamber;
and
injecting the compressed tobacco from the compression chamber to a cigarette tube in
communication with the compression chamber.

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59. (Original) The method of claim 58, further comprising assessing the status of a second switch to determining whether the compression is complete.

60. (Original) The method of claim 59, further comprising querying the first switch only after the second switch has been engaged.

61. (Original) The method of claim 57, wherein compression is performed by a compression member moveable along a first axis, and wherein the compression member is coupled to the compression motor by a spring which allows the position of the compression member to vary along the first axis in response to a load provided by compressing the tobacco.

62. (Original) The method of claim 61, wherein the variance in the position of the compression member in response to the load selectively changes the status of a first switch.

63. (Original) The method of claim 62, further comprising assessing the status of a second switch to determining whether the compression is complete.

64. (Original) The method of claim 63, further comprising querying the first switch only after the second switch has been engaged.

65. (Currently Amended) ~~The method of claim 56, further comprising~~ A method for filling a cigarette tube with tobacco, comprising not necessarily in sequence:

metering loose tobacco from a hopper to a compression chamber;

compressing the loose tobacco in the compression chamber;

determining whether a sufficient quantity of tobacco has been compressed in the compression chamber; and

injecting the compressed tobacco from the compression chamber to a cigarette tube in communication with the compression chamber.

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66. (Original) The method of claim ~~56~~ 57, wherein the metering and compression steps are performed in alternating fashion prior to the injection step.

67. (Currently Amended) ~~The method of claim 56, further comprising~~ A method for filling a cigarette tube with tobacco, comprising not necessarily in sequence:

metering loose tobacco from a hopper to a compression chamber;

compressing the loose tobacco in the compression chamber;

determining whether a sufficient quantity of tobacco has been compressed in the compression chamber during each compression step; and

injecting the compressed tobacco from the compression chamber to a cigarette tube in communication with the compression chamber.

68. (Currently Amended) ~~The method of claim 56, further comprising~~ A method for filling a cigarette tube with tobacco, comprising not necessarily in sequence:

metering loose tobacco from a hopper to a compression chamber;

compressing the loose tobacco in the compression chamber;

injecting the compressed tobacco from the compression chamber to a cigarette tube in communication with the compression chamber; and

automating the metering, compression, and injecting steps in accordance with an algorithm.

69. (Original) The method of claim 68, wherein the algorithm further assesses whether a sufficient quantity of tobacco has been compressed in the compression chamber.

70. (Original) The method of claim 69, wherein the algorithm provides for an additional metering step if an insufficient quantity of tobacco has been assessed.

71. (Currently Amended) The method of claim ~~56~~ 81, wherein the metering step is automated.

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72. (Original) ~~The method of claim 71~~ A method for filling a cigarette tube with tobacco, comprising not necessarily in sequence:

metering loose tobacco from a hopper to a compression chamber;
compressing the loose tobacco in the compression chamber; and
injecting the compressed tobacco from the compression chamber to a cigarette tube in
communication with the compression chamber,
wherein the metering step is automated, and
wherein the compression and injection steps are manual.

73. (Original) The method of claim 72, wherein the compression and injection steps comprise rotating a crank arm.

74. (Original) The method of claim 73, wherein rotating the crack arm performs the compression step before the injection step.

75. (Currently Amended) The method of claim 56 81, wherein the metering, compression, and injection steps are manual.

76. (Currently Amended) ~~The method of claim 75~~ A method for filling a cigarette tube with tobacco, comprising not necessarily in sequence:

metering loose tobacco from a hopper to a compression chamber;
compressing the loose tobacco in the compression chamber; and
injecting the compressed tobacco from the compression chamber to a cigarette tube in
communication with the compression chamber,
wherein the metering, compression, and injection steps are manual, and
wherein the compression and injection steps comprise rotating a crank arm.

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77. (Currently Amended) The method of claim 76, wherein rotating the ~~crank~~ crank arm performs the compression step before the injection step.

78. (Original) The method of claim ~~56~~ 57, wherein the metering step comprises reciprocation of a metering member through a plurality of strokes.

79. (Currently Amended) The method of claim 78, wherein the metering member is moveable by a motor.

80. (Currently Amended) ~~The method of claim 78,~~ A method for filling a cigarette tube with tobacco, comprising not necessarily in sequence:

metering loose tobacco from a hopper to a compression chamber;
compressing the loose tobacco in the compression chamber; and
injecting the compressed tobacco from the compression chamber to a cigarette tube in
communication with the compression chamber,
wherein the metering step comprises reciprocation of a metering member through a
plurality of strokes, and
wherein the metering member is moveable by a rotating crank arm.

81. (Currently Amended) ~~The method of claim 56~~ A method for filling a cigarette tube with tobacco, comprising not necessarily in sequence:

metering loose tobacco from a hopper to a compression chamber;
compressing the loose tobacco in the compression chamber; and
injecting the compressed tobacco from the compression chamber to a cigarette tube in
communication with the compression chamber,
wherein the tobacco is metered along a first axis, the tobacco is compressed along a second axis, and the tobacco is injected along a third axis, and wherein the first, second, and third axes are all orthogonal to each other.

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82. (Original) The method of claim ~~56~~ 85, wherein the compression step further comprises affixing the cigarette tube in communication with the compression chamber.

83. (Original) The method of claim ~~56~~ 85, further comprising, prior to the metering, compression, and injection steps, affixing the cigarette tube in communication with the compression chamber.

84. (Original) The method of claim ~~56~~ 85, further comprising biasing the loose tobacco downward in the hopper.

85. (Currently Amended) ~~The method of claim 56~~ A method for filling a cigarette tube with tobacco, comprising not necessarily in sequence:

metering loose tobacco from a hopper to a compression chamber;

compressing the loose tobacco in the compression chamber; and

injecting the compressed tobacco from the compression chamber to a cigarette tube in communication with the compression chamber,

wherein the metering and compression steps are both performed using a first member.

86. (Original) The method of claim 85, further comprising automating the movement of the first member and automating the injection step.

87. (Original) The method of claim 86, further comprising assessing the status of a first switch during compression to determining whether a sufficient quantity of tobacco has been compressed in the compression chamber.

88. (Original) The method of claim 87, further comprising assessing the status of a second switch to determining whether the compression is complete.

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89. (Original) The method of claim 88, further comprising querying the first switch only after the second switch has been engaged.
90. (Original) The method of claim 86, wherein compression is performed by a compression member moveable along a first axis, and wherein the compression member is coupled to the compression motor by a spring which allows the position of the compression member to vary along the first axis in response to a load provided compressing the tobacco.
91. (Original) The method of claim 90, wherein the variance in the position of the compression member in response to the load selectively changes the status of a first switch.
92. (Original) The method of claim 91, further comprising assessing the status of a second switch to determining whether the compression is complete.
93. (Original) The method of claim 92, further comprising querying the first switch only after the second switch has been engaged.
94. (Original) The method of claim 85, further comprising determining whether a sufficient quantity of tobacco has been compressed in the compression chamber.
95. (Original) The method of claim 85, further comprising reciprocating the first member through a plurality of strokes.
96. (Original) The method of claim 85, further comprising automating the movement of the first member and automating the injecting step in accordance with an algorithm.
97. (Original) The method of claim 96, wherein the algorithm assesses whether a sufficient quantity of tobacco has been compressed in the compression chamber.

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98. (Original) The method of claim 97, wherein the algorithm provides for additional metering by the first member if an insufficient quantity of tobacco has been assessed.

99. (Original) The method of claim 85, wherein the first member and injection member are manually moveable.

100. (Original) The method of claim 85, wherein the first member is moveable along a first axis, and wherein the tobacco is injected along a second axis, and wherein the first and second axes are orthogonal to each other.

101. (Original) The method of claim 85, further comprising biasing the loose tobacco downward in the hopper.

102. (Original) The method of claim 85, wherein the compression chamber is essentially cylindrical and has a gap on its upper surface, and wherein the first member has an edge which interfaces with the compression chamber at the gap.

103. (Original) The method of claim 102, wherein the edge of the first member is semicircular.

104. (Currently Amended) ~~The method of claim 56~~ A method for filling a cigarette tube with tobacco, comprising not necessarily in sequence:

metering loose tobacco from a hopper to a compression chamber;

compressing the loose tobacco in the compression chamber; and

injecting the compressed tobacco from the compression chamber to a cigarette tube in communication with the compression chamber,

wherein the tobacco is injected only after verification that the compressed tobacco in the compression chamber is of a suitable quantity.